R6-8401-33

EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

REGION	SITE NUMBER (to be assigned by Hq)
6	OK1686

GENERAL INSTRUCTIONS: Complete Sections I and III through XV of this form as completely as possible. Then use the information on this form to develop a Tentative Disposition *(Section II)*. File this form in its entirety in the regional Hazardous Waste Log File. Be sure to include all appropriate Supplemental Reports in the file. Submit a copy of the forms to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Tack Force *(EN-335)*; 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET (or other identifier)		
Sinclair Oil Corp. - Tulsa Refinery	902 W. 25th Street		
C. CITY	**D. STATE**	**E. ZIP CODE**	**F. COUNTY NAME**
Tulsa (FKA Texaco Weathering Pits)	OK	74107	Tulsa

G. SITE OPERATOR INFORMATION

1. NAME	2. TELEPHONE NUMBER		
Sinclair OilCorp. - R. H. Johnson, Plant Manager	(918) 584-5025		
3. STREET	**4. CITY**	**5. STATE**	**6. ZIP CODE**
902 W. 25th Street	Tulsa	OK	74107

H. REALTY OWNER INFORMATION *(if different from operator of site)*

1. NAME	2. TELEPHONE NUMBER	
(Same as above)		
3. CITY	**4. STATE**	**5. ZIP CODE**

I. SITE DESCRIPTION

The site is an active petroleum refinery with inactive portions.

J. TYPE OF OWNERSHIP

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☒ 5. PRIVATE

II. TENTATIVE DISPOSITION *(complete this section last)*

A. ESTIMATE DATE OF TENTATIVE DISPOSITION (mo., day, & yr.)	B. APPARENT SERIOUSNESS OF PROBLEM
	☐ 1. HIGH ☐ 2. MEDIUM ☒ 3. LOW ☐ 4. NONE

C. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE (mo., day, & yr.)
For C. Phillip Watts (T. H. Malone)	(214) 742-6601	6-8-84

III. INSPECTION INFORMATION

A. PRINCIPAL INSPECTOR INFORMATION

1. NAME	2. TITLE	
Steven Mellon	Geologist	
3. ORGANIZATION		**4. TELEPHONE NO. (area code & no.)**
Ecology and Environment, Inc., 1509 Main St., Dallas, TX 75201		(214) 742-6601

B. INSPECTION PARTICIPANTS

1. NAME	2. ORGANIZATION	3. TELEPHONE NO.
Steven Mellon	Ecology and Environment, Inc.	(214) 742-6601
C. Phillip Watts	" "	

C. SITE REPRESENTATIVES INTERVIEWED *(corporate officials, workers, residents)*

1. NAME	2. TITLE & TELEPHONE NO.	3. ADDRESS
Ray Russell	(918)584-5025 Environmental Manager	Sinclair Oil Corp., Box 970 Tulsa, OK 74101

REVIEWED BY [illegible] DATE 7/10/84

185086

Continued From Front

INSPECTION INFORMATION *(continued)*

D. GENERATOR INFORMATION *(sources of waste)*

1. NAME	2. TELEPHONE NO.	3. ADDRESS	4. WASTE TYPE GENERATED
(Same as Operator)			

E. TRANSPORTER/HAULER INFORMATION

1. NAME	2. TELEPHONE NO.	3. ADDRESS	4. WASTE TYPE TRANSPORTED
No waste is transported off-site)			

F. IF WASTE IS PROCESSED ON SITE AND ALSO SHIPPED TO OTHER SITES, IDENTIFY OFF-SITE FACILITIES USED FOR DISPOSAL.

1. NAME	2. TELEPHONE NO.	3. ADDRESS
No waste is presently shipped to other sites. However, a facility will be designated		
for future use.		

G. DATE OF INSPECTION *(mo., day, & yr.)*	H. TIME OF INSPECTION	I. ACCESS GAINED BY: *(credentials must be shown in all cases)*
4-16-84	1300-1500 hrs.	☒ 1. PERMISSION ☐ 2. WARRANT

J. WEATHER *(describe)*

65° F Light, variable winds, cloudy.

IV. SAMPLING INFORMATION

A. Mark 'X' for the types of samples taken and indicate where they have been sent e.g., regional lab, other EPA lab, contractor, etc. and estimate when the results will be available.

1. SAMPLE TYPE	2. SAMPLE TAKEN *(mark 'X')*	3. SAMPLE SENT TO:	4. DATE RESULTS AVAILABLE
a. GROUNDWATER			
b. SURFACE WATER			
c. WASTE			
d. AIR			
e. RUNOFF			
f. SPILL			
g. SOIL			
h. VEGETATION			
i. OTHER *(specify)*	x	No samples taken during inspection.	

B. FIELD MEASUREMENTS TAKEN *(e.g., radioactivity, explosivity, PH, etc.)*

1. TYPE	2. LOCATION OF MEASUREMENTS	3. RESULTS
None taken		

Continued From Page 2

IV. SAMPLING INFORMATION (continued)

C. PHOTOS

1. TYPE OF PHOTOS: [X] a. GROUND [ ] b. AERIAL

2. PHOTOS IN CUSTODY OF: EPA, Region 6 (attached)

D. SITE MAPPED?

[X] YES. SPECIFY LOCATION OF MAPS: (See attached maps)

E. COORDINATES

1. LATITUDE (deg.-min.-sec.): 36° 07' 30"N

2. LONGITUDE (deg.-min.-sec.): 96° 00' 00" W

V. SITE INFORMATION

A. SITE STATUS

[X] 1. ACTIVE (Those inductrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)

[ ] 2. INACTIVE (Those sites which no longer receive wastes.)

[X] 3. OTHER (specify): Portions are Inactive (Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)

B. IS GENERATOR ON SITE?

[ ] 1. NO [X] 2. YES (specify generator's four-digit SIC Code): 2911

C. AREA OF SITE (in acres)

Total 466
Inactive 13

D. ARE THERE BUILDINGS ON THE SITE?

[ ] 1. NO [X] 2. YES (specify): Office, laboratory and plant buildings.

VI. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

	A. TRANSPORTER		B. STORER		C. TREATER		D. DISPOSER
	1. RAIL		1. PILE		1. FILTRATION		1. LANDFILL
	2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION	X	2. LANDFARM
	3. BARGE		3. DRUMS		3. VOLUME REDUCTION		3. OPEN DUMP
	4. TRUCK		4. TANK, ABOVE GROUND		4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
	5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS./TREATMENT		5. MIDNIGHT DUMPING
	6. OTHER (specify):	X	6. OTHER (specify):	X	6. BIOLOGICAL TREATMENT		6. INCINERATION
				X	7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
					8. SOLVENT RECOVERY		8. OTHER (specify):
					9. OTHER (specify):		
	N/A		No storage for over 90 days		Recovery of oil from wastewater system and from on-site shallow wells.		

E. SUPPLEMENTAL REPORTS: If the site falls within any of the categories listed below, Supplemental Reports must be completed. Indicate which Supplemental Reports you have filled out and attached to this for..

[ ] 1. STORAGE [ ] 2. INCINERATION [ ] 3. LANDFILL [ ] 4. SURFACE IMPOUNDMENT [ ] 5. DEEP WELL

[ ] 6. CHEM/BIO/PHYS TREATMENT [X] 7. LANDFARM [ ] 8. OPEN DUMP [ ] 9. TRANSPORTER [ ] 10. RECYCLOR/RECLAIMER

VII. WASTE RELATED INFORMATION

A. WASTE TYPE

[X] 1. LIQUID [X] 2. SOLID [X] 3. SLUDGE [ ] 4. GAS

B. WASTE CHARACTERISTICS

[X] 1. CORROSIVE [X] 2. IGNITABLE [ ] 3. RADIOACTIVE [X] 4. HIGHLY VOLATILE

[X] 5. TOXIC [X] 6. REACTIVE [X] 7. INERT [X] 8. FLAMMABLE

[ ] 9. OTHER (specify):

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

Yes. On-site files available.

Continue On Reverse

Continued From Front

[redacted]E RELATED INFORMATION (continued)

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT: Unknown	AMOUNT: Unknown	AMOUNT: Unknown	AMOUNT: Unknown	AMOUNT: None	AMOUNT: None
UNIT OF MEASURE:	UNIT OF MEASURE:	UNIT OF MEASURE:	UNIT OF MEASURE:	UNIT OF MEASURE:	UNIT OF MEASURE:
[ ] (1) PAINT, PIGMENTS	[X] (1) OILY WASTES	[X] (1) HALOGENATED SOLVENTS	[ ] (1) ACIDS	[ ] (1) FLYASH	[X] (1) LABORATORY, PHARMACEUT.
[ ] (2) METALS SLUDGES	[X] (2) OTHER (specify): Crude oil from spills	[ ] (2) NON-HALOGNTD. SOLVENTS	[ ] (2) PICKLING LIQUORS	[ ] (2) ASBESTOS	[ ] (2) HOSPITAL
[ ] (3) POTW		[X] (3) OTHER (specify): Corrosives	[ ] (3) CAUSTICS	[ ] (3) MILLING/MINE TAILINGS	[ ] (3) RADIOACTIVE
[ ] (4) ALUMINUM SLUDGE			[ ] (4) PESTICIDES	[ ] (4) FERROUS SMELTING WASTES	[ ] (4) MUNICIPAL
[X] (5) OTHER (specify): Heat exchanger Bundle sludge API separator Sludge Leaded tank Bottoms			[ ] (5) DYES/INKS	[ ] (5) NON-FERROUS SMLTG. WASTES	[ ] (5) OTHER (specify):
			[ ] (6) CYANIDE	[ ] (6) OTHER (specify):	
			[ ] (7) PHENOLS		
			[ ] (8) HALOGENS		
			[ ] (9) PCB		
			[ ] (10) METALS		
			[X] (11) OTHER (specify): Tetraethyl lead		

D. LIST SUBSTANCES OF GREATEST CONCERN WHICH ARE ON THE SITE (place in descending order of hazard)

1. SUBSTANCE	2. FORM (mark 'X') a. SOLID	b. LIQ.	c. VAPOR	3. TOXICITY (mark 'X') a. HIGH	b. MED.	c. LOW	d. NONE	4. CAS NUMBER	5. AMOUNT	6. UNIT
Halogenated solvent		X						None	Unknown	
Tetraethyl lead	X							None	Unknown	

VIII. HAZARD DESCRIPTION

FIELD EVALUATION HAZARD DESCRIPTION: Place an 'X' in the box to indicate that the listed hazard exists. Describe the hazard in the space provided.

[ ] A. HUMAN HEALTH HAZARDS

Continue On Page 5

Continued From Page 4

VIII. HAZARD DESCRIPTION *(continued)*

☐ B. NON-WORKER INJURY/EXPOSURE

☐ C. WORKER INJURY/EXPOSURE

☐ D. CONTAMINATION OF WATER SUPPLY

☐ E. CONTAMINATION OF FOOD CHAIN

☒ F. CONTAMINATION OF GROUND WATER

Because the refinery is located on relatively permeable alluvial deposits, the potential for groundwater contamination exists. None has been documented, however, a hydrocarbon recovery program is being initiated on the refinery property.

☐ G. CONTAMINATION OF SURFACE WATER

VIII. HAZARD DESCRIPTION *(continued)*

☐ H. DAMAGE TO FLORA/FAUNA

☐ I. FISH KILL

☐ J. CONTAMINATION OF AIR

☐ K. NOTICEABLE ODORS

☐ L. CONTAMINATION OF SOIL

☐ M. PROPERTY DAMAGE

Continued From Page 6

VIII. HAZARD DESCRIPTION *(continued)*

☐ N. FIRE OR EXPLOSION

☐ O. SPILLS/LEAKING CONTAINERS/RUNOFF/STANDING LIQUID

☐ P. SEWER, STORM DRAIN PROBLEMS

☐ Q. EROSION PROBLEMS

☐ R. INADEQUATE SECURITY

☐ S. INCOMPATIBLE WASTES

VIII. HAZARD DESCRIPTION *(continued)*

☐ T. MIDNIGHT DUMPING

☒ U. OTHER *(specify)*:

(See AttachmentA)

IX. POPULATION DIRECTLY AFFECTED BY SITE

A. LOCATION OF POPULATION	B. APPROX. NO. OF PEOPLE AFFECTED	C. APPROX. NO. OF PEOPLE AFFECTED WITHIN UNIT AREA	D. APPROX. NO. OF BUILDINGS AFFECTED	E. DISTANCE TO SITE *(specify units)*
1. IN RESIDENTIAL AREAS	500	500	125	¼ mile
2. IN COMMERCIAL OR INDUSTRIAL AREAS	1000	1000	25	¼ mile
3. IN PUBLICLY TRAVELLED AREAS	500	500	0	¼ mile
4. PUBLIC USE AREAS *(parks, schools, etc.)*	250	250	1	¼ mile

X. WATER AND HYDROLOGICAL DATA

A. DEPTH TO GROUNDWATER *(specify unit)*	B. DIRECTION OF FLOW	C. GROUNDWATER USE IN VICINITY
10'	ESE	Industrial, agricultural
D. POTENTIAL YIELD OF AQUIFER	**E. DISTANCE TO DRINKING WATER SUPPLY** *(specify unit of measure)*	**F. DIRECTION TO DRINKING WATER SUPPLY**
20-200 GPM	50 mi.	SE

G. TYPE OF DRINKING WATER SUPPLY

☐ 1. NON-COMMUNITY < 15 CONNECTIONS ☒ 2. COMMUNITY *(specify town)*: > 15 CONNECTIONS Tulsa - Spavinaw, Oologah Lakes

☒ 3. SURFACE WATER ☐ 4. WELL

Continue On Page 9

Continued From Page 8

X. WATER AND HYDROLOGICAL DATA *(continued)*

H. LIST ALL DRINKING WATER WELLS WITHIN A 1/4 MILE RADIUS OF SITE

1. WELL	2. DEPTH *(specify unit)*	3. LOCATION *(proximity to population/buildings)*	4. NON-COMMUNITY *(mark 'X')*	5. COMMUNITY *(mark 'X')*
None	-			

I. RECEIVING WATER

1. NAME: Arkansas River

☐ 2. SEWERS ☒ 3. STREAMS/RIVERS ☐ 4. LAKES/RESERVOIRS ☐ 5. OTHER *(specify)*:

6. SPECIFY USE AND CLASSIFICATION OF RECEIVING WATERS

Public and private water supply, fish and wildlife propagation, agriculture, M&I cooling water, primary and secondary recreation, naviagation, aesthetics.

XI. SOIL AND VEGITATION DATA

LOCATION OF SITE IS IN:

☐ A. KNOWN FAULT ZONE ☐ B. KARST ZONE ☒ C. 100 YEAR FLOOD PLAIN ☐ D. WETLAND

☐ E. A REGULATED FLOODWAY ☐ F. CRITICAL HABITAT ☒ G. RECHARGE ZONE OR SOLE SOURCE AQUIFER

XII. TYPE OF GEOLOGICAL MATERIAL OBSERVED

Mark 'X' to indicate the type(s) of geological material observed and specify where necessary, the component parts.

'X'	A. OVERBURDEN	'X'	B. BEDROCK *(specify below)*	'X'	C. OTHER *(specify below)*
X	1. SAND		None observed		
X	2. CLAY				
	3. GRAVEL				

XIII. SOIL PERMEABILITY

☐ A. UNKNOWN ☐ B. VERY HIGH *(100,000 to 1000 cm/sec.)* ☒ C. HIGH *(1000 to 10 cm/sec.)*

☐ D. MODERATE *(10 to .1 cm/sec.)* ☐ E. LOW *(.1 to .001 cm/sec.)* ☐ F. VERY LOW *(.001 to .00001 cm/sec.)*

G. RECHARGE AREA

☒ 1. YES ☐ 2. NO 3. COMMENTS: Recharge zone for alluvial aquifer.

H. DISCHARGE AREA

☐ 1. YES ☒ 2. NO 3. COMMENTS:

I. SLOPE

1. ESTIMATE % OF SLOPE: flat

2. SPECIFY DIRECTION OF SLOPE, CONDITION OF SLOPE, ETC.: N/A

J. OTHER GEOLOGICAL DATA

The site is underlain by Quaternary alluvial deposits of unconsolidated sand, silt, clay, and gravel. These deposits generally yield moderate to large amounts of fair to good quality water.

 Continue On Reverse

XIV. PERMIT INFORMATION

List all applicable permits held by the site and provide the related information.

A. PERMIT TYPE (e.g., RCRA, State, NPDES, etc.)	B. ISSUING AGENCY	C. PERMIT NUMBER	D. DATE ISSUED (mo., day, & yr.)	E. EXPIRATION DATE (mo., day, & yr.)	F. IN COMPLIANCE (mark 'X') 1. YES	2. NO	3. UNKNOWN
NPDES		OK0001309	10-24-83		X		
Water Discharge	OWRB	WD78030	12-83		X		
RCRA Disposal Plant	EPA	72069					

XV. PAST REGULATORY OR ENFORCEMENT ACTIONS

☒ NONE ☐ YES (summarize in this space)

NOTE: Based on the information in Sections III through XV, fill out the Tentative Disposition *(Section II)* information on the first page of this form.

LAND FARM SITE INSPECTION REPORT
(Supplemental Report)

INSTRUCTION
Answer and Explain as necessary.

1. STATE PERMIT
☒ YES ☐ NO

2. AREA *(Dimensions of Site)*
13 acres total

3. APPLICATION RATE
Inactive

4. IMPROPER DISPOSAL OF UNAUTHORIZED MATERIALS IN LAND FARM
☐ YES ☒ NO

5. DIVERSION STRUCTURES ARE EFFECTIVELY CONSTRUCTED AND PROPERLY MAINTAINED
☒ YES ☐ NO

6. EVIDENCE OF PONDING OF LIQUID ON SITE
☐ YES ☒ NO

7. ODORS *(especially hydrogen sulfide) (If YES, indicate)*
☐ YES ☒ NO

8. GENERAL PHYSICAL APPEARANCE OF SOIL *(Color, Sand/Silt/Clay Content)*
Sandy Loam

9. VEGETATION ON LAND FARM
Grass

10. pH
No readings taken.

ATTACHMENT A

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT SUPPLEMENT SHEET

Instruction - This sheet is provided to give additional information in explanation of a question on the form T2070-3.

Corresponding number on form	Additional Remark and/or Explanation
VIII U Other	The FIT conducted a reconnaissance inspection of the Sinclair Corp. Tulsa Refinery (formerly the Texaco Tulsa Refinery) on April 16, 1984. Mr. Ray Russell, Environmental Manager of the refinery, was interviewed and accompanied FIT members on the inspection. The thirteen acres of weathering pits and landfarms referenced on the CERCLA Notifier were found to be composed of five separate inactive sites. These have been arbitrarily designated as Sites A, B, C, D and E for the purposes of this report, with individual descriptions following. These sites have been drawn in on the accompanying blueprint of the refinery, which also shows the locations of photos taken during the inspection. Site A is a one-acre area located just north of storage tanks 310 and 311. According to Mr. Russell, rust scale from unleaded tank bottoms was disposed of there from before 1947 until 1970. The site is believed to have been a landfarm. Site B is a two-acre area located in the west tank farm levied area. Oily sludges were disposed of there from before 1947 until 1966. Part of this area is believed to be a result of a one-time crude oil spill. This site is also thought to have been a landfarm. Site C is a one-acre area located just north of the Linde Oxygen Casade Unit. Tank bottom sludges containing tetraethyl lead were disposed of there in 1973. This area is also believed to have been a landfarm. An upgradient monitoring well for the North Landfarm area has been placed in the center of this area. According to Mr. Russell, samples of this water to date have not shown significant levels of contamination. Site D is a five-acre area which is now occupied by an active storm water holding reservoir. Oily sludges and heat exchanger bundle sludges were landfilled there from before 1947 to 1976. These wastes have since been excavated and landfarmed in the active South Landfarm area. Site D is currently offsite with respect to the Sinclair Refinery. Site E is a five-acre area which is now occupied by an active wastewater treatment facility. API separator sludge was landfilled there from before 1947 to 1975. These wastes were excavated in 1976 and landfarmed in the South Landfarm. A potential for surface water and groundwater contamination, resulting from the inactive disposal facilities, does exist at the site. The two inactive Sites A and B appear to lie within diked areas which are regulated by SPCC guidelines. Any potential surface contamination from the remaining three inactive sites, would be regulated through the refinery stormwater runoff collection system.

ATTACHMENT A

Shallow grandwater at the refinery is currently being monitored through a system of RCRA monitoring wells and lysimeters. The local gradient of the water table at the refinery appears to be East Southeast, towards the Arkansas River. Analytical results from these RCRA wells and lysimeters are being reviewed by the OSDH.

Leaded tank bottoms disposed of at Site C are presently the greatest potential for serious groundwater contamination with respect to the inactive disposal facilities. Monitoring well WTP-4 lies approximately in the center of Site C and lysimeters WGL1,2,3,4 and 7 appear to be downgradient of Site C. On June 7, 1984, the FIT contacted Tim Underwood of the OSDH in Oklahoma City to obtain analytical data with regard to samples taken in WTP-4, WGL1, WGL2, WGL3, WGL4 and WGL7. The maximum concentrations of lead were stated to be 0.35 milligrams/liter. These levels of lead are greater than drinking water standards and may potentially be significant.However,shallow groundwater in the vicinity of the refinery is not currently used as a supply of drinking water.

The FIT, therefore, recommends that the EPA continue to monitor the analytical results obtained from the samples collected by the OSDH under RCRA regulations, to ensure that these concentrations remain stable or subside.

Photographer / Witness

Charles P. Watts / S Mellon

Date / Time / Direction

4-16-84 1445 hrs. North

Comments: Photos 16, 17 Part of panorama of site "B," matches previous page. View from south edge of tank farm on west edge of refinery.

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Charles P. Vatt / S Mellon

Date / Time / Direction

4-16-84 1421 hrs. North

Comments: Site "A" View From west perimeter of site "A", along storage tanks 310 and 311. Photos 1 and 2

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Charles P. Watts / S. Mellon

Date / Time / Direction

4-16-84 1426 hrs. North

Comments: Site "C" view from south edge Photo 3

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Date / Time / Direction

Comments:

Site "E" Panorama Photos 4 and 5
(Matches with photos 6 and 7)
on next page

Photographer / Witness

Charles P. Watts / S Mellon

Date / Time / Direction

4-16-84 1430 East

Comments: Panorama, Site "E"
Photos 4, 5

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Date / Time / Direction

Comments:

Site "E" Panorama, Photos 6 and 7
(Matches with photos 4 and 5 from previous page.)

Photographer / Witness

Charles P. Vath / S. Mellon

Date / Time / Direction

4-16-84 1430 East

Comments: Panorama Site "E"
Photos 6, 7

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Charles P. Watt / S. Mellon

Date / Time / Direction

4-6-84 1440 hrs. Northeast

Comments: Site "D", View from southwest corner of impoundment. Photos 12, 13, 14

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Charles P. Watt / S Mellon

Date / Time / Direction

4-16-84 1445 hrs. North

Comments: Photo 15, Part of Panorama of site "B" - matches with photos 16-17 on next page. View from south edge of tank farm on west edge of refinery.

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Date / Time / Direction

Comments: